





Contact ADC Nordic AB - +46 (0)40-680 02 80 to find out prices and deliverytime.

# **Product Overview**

The Datamax H-Class thermal printer takes printing into the next era of high performance and reliability. Combined with true RFID integration, the new Datamax H-class features leading edge technology to provide the most flexible and capable label print system in the industry.

# Top 10 Reasons to sell the H-Class....

- 1 Superior Performance
  - Fastest time to first label-out and up to twice as fast in total throughput
  - Great print quality
  - Powered full-roll rewind for batch printing
- 2 Rugged and Reliable
  - Heavy duty design to support 24x7 mission-critical applications
  - Solid cast metal chassis with a durable steel cabinet
- 3 Integrated RFID Design
  - Designed for RFID from the start
  - Strategically placed antenna provides optimum performance and accuracy with flexibility to support future standards
  - Quick and easy calibration of tags for precise print positioning and encoding
  - RFID-Ready version with pre-installed antenna for future RFID upgrade
- 4 Easy to support Competitive Printer Replacement
  - Popular printer command language emulation
  - Other competitive printer languages to be announced
  - Automatically supports both coated side in and coated side out ribbon to support use of existing ribbons
- 5 Large Programmable LCD Display
  - Easy to read status alerts and menu selections with the large graphics display
  - Personalize the large display with marketing messages and/or logo's



# 6 IntelliSEAQ®Print head

- Enhanced technology to improve print quality and provide longer print life
- High-tech heat control with statistics history in flash memory and analysis software application for service analytics
- Less frequent replacement results in reduced down time
- Lower cost of printing due to longer printhead life

# **7** Best Warranty

- Two year, unlimited-inch warranty
- Great value for the end-user through lower cost of support

# 8 Lowest Total Cost of Ownership

- All gear driven no belts to wear out, decreasing down time
- Easy to sell additional options that can quickly and easily be installed in the field

# 9 Expanded Communications

- Equipped with the broadest selection of communication ports
- Ethernet, parallel, serial and USB all standard on the main electronics

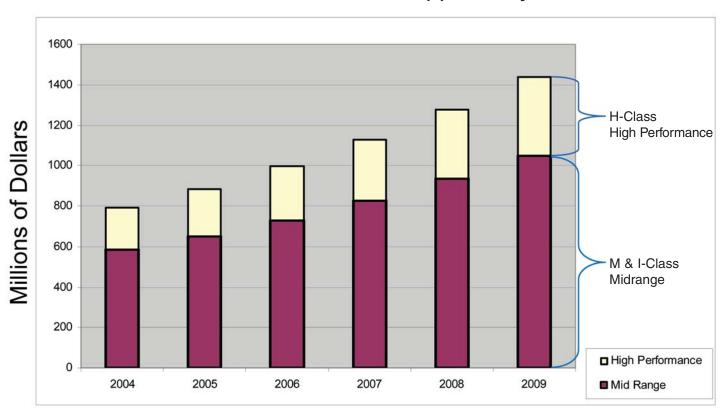
# 10 Fast and Easy Media Loading

- Minimize down time and user training with open paper path and visible media routing arrows
- Red LED top of form orientation light beam for easy media alignment

# **Market Overview & Opportunities**

# Global Thermal Market

# Incremental Growth Opportunity



- Similar expected growth rate for Midrange market and High Performance market
- High Performance segment is new opportunity for Datamax Partners
  - Incremental revenue growth opportunities

Source VDC

# **Standard Features**

## **External Features**



### 1 Industrial Metal Cabinet

- Rugged corrosion resistant steel enclosure
- Easy to clean surface
- Anti-corrosive, for harsh environments

## 2 240 x 320 Graphics LCD

- Detailed on-screen messages
- Easier to read
- Non-Latin fonts display
- Customizable with reseller information and end-user logos
- Enhanced Graphics

#### 3 Operator Control Panel

- Sealed for protection from harsh environments
- Simplified User and advanced menu selection
- Navigational and multi-function "soft" keys

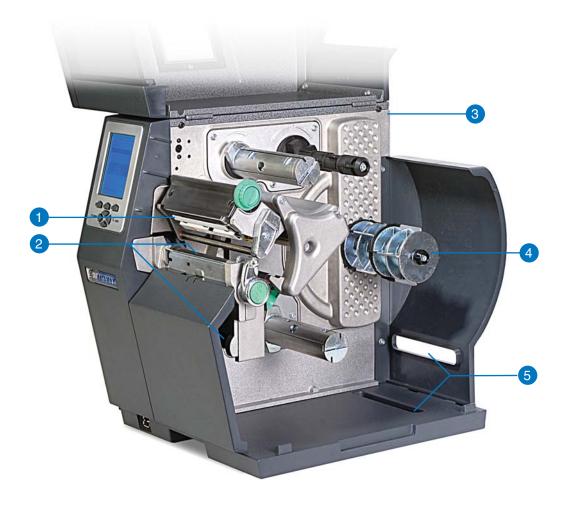
## 4 SDIO & USB Host Ports

- SDIO Card Slot
   Easily add or transport graphics, fonts, and label formats to your printer.
- USB Slots
   Two USB slots allows for any USB attachments such as keyboards or memory thumbdrives.

## 5 Large Side Window

- Continuously monitor media & ribbon supply
- View internal rewind capacity
- Minimize down-time with anticipated media replacement

## **Internal Features**



#### 1 IntelliSEAQ™ Printhead

- Advanced diagnostics for maximizing printhead life.
- Precision printhead settings for specific environments.
- Accurately understands usage of the printhead.

# 4 Split Label Supply Hub

- Die-Cast construction
- Split design allows lower torque on narrow media.
- Supports up to 8" (203mm) O.D. roll
- Hub designs to support 38mm and 76mm cores

#### 2 Dual Platen Rollers

- Improves hard to peel labels when used with the Peel and Present Option.
- Overdriven platen roller improves peel and rewind performance.

### 5 Fan-Fold Media Slots

Flexible to support rolled or fan folded media behind or below printer.

# 3 Die-Cast Aluminum Frame

Aluminum construction withstands the harshest environments.

# **Connectivity Features**



- Parallel Port
- 36 Pin Centronics Connector
- IEEE 1284 Bi-directional support
- 2 Ethernet Port
- 10/100 BaseT Ethernet Connection
- DHCP Support
- Internal Web Pages for printer control
- SNMP Network Support

- 3 USB Port (Rear Panel)
- USB 1.1 and 2.0 compatible
- Plug N' Play Ready

#### 4 Serial Port

- 9-Pin Serial Connector
- Configurable for RS-232, 422, and 485
- Supports Baud Speeds up to 115Kbps

#### 5 Power Connection

Auto-ranging Power Supply, supports voltage ranges from 90 to 132 and 180 to 264 VAC @ 47 - 63 Hz.

#### 6 USB Port (Front Panel)

- 2 USB Ports
- Supports keyboards, scales, flash based thumbdrives, and other peripheral devices

# **Ease of Use Features**

# 1 Enhanced Printhead Latch

- An over the center cam for easy and reliable latching.
- Dual sided latch for even pressure and consistent and accurate placement of the printhead.





# 2 Enhanced Top of Form Sensor

- Easy to set up, virtually any type of media with very little effort.
- A bright red light shines from the lower half of the sensor to quickly line up the top of form supporting any type media.

# 3 Easy Printhead Replacement

 In Just 2 easy steps the printhead can be removed and replaced reducing the downtime of crucial mission critical applications.



# 4 Quick Replacement of Platen Rollers

- Novice users can replace the platen roller decreasing down time and avoiding costly service calls.

- Replacing the platen roller takes less than five minutes without ever accessing the electronic side of the printer.



# **Product Options**



# 1 GPIO/Applicator Card

The General Purpose Input Output (GPIO) is a user's interface to control the start of print (INPUT) and monitor the status (OUTPUT) of a label in the printer. GPIO is used mostly for applicators to control when to print a label and to know the status of when a label has completed printing to signal the applicator to pick it up.

- The GPIO Card consists of 10 inputs, 13 outputs, and 2 serial ports.
- Inputs and Outputs can be used to control and drive external devices such as:

Fault/Warning Lights Light Trees Conveyer systems

**Applicator Gates** 

Box Dividers

Photocell and Position Sensors

 The GPIO Card in conjunction with MCL can replace expensive Programmable Logic Controllers (PLC) in a wide range of industrial applications.

# 2 DMXrfNet<sup>II</sup> 802.11b Wireless Card

A high-performance 802.11b, WiFi compatible, network interface card that enables the printer to communicate in a wireless network environment. Some of the features are listed below:

- 802.11b wireless LAN (Wi-Fi) standards-based technology
- Highly integrated module includes radio and dedicated processor
- Built-in TCP/IP and UDP features provide flexible LAN connectivity options
- Built-in Web server enables drop-in LAN and Internet connectivity
- Built in WEP, WPA/PSK, and LEAP security protocols
- Runs on Cisco Access Points
- Fully integrated with printer's menu system
- On-screen graphical diagnostics displays signal strength and status

# **Hardware/Software Options**

## 1 Thermal Transfer DPO78-2613-01



A printing method that uses ribbon to produce exceptional image clarity, as compared to most direct thermal media types. The 4 section splithub design allows for lower torque on narrow ribbons. This option can be used with either 'coated side in' ribbons or 'coated side out' ribbons.

# 2 Standard Peel & Present DPO78-2655-01



A simple "plate" style design that automatically separates most printed labels from the backing material and allows subsequent printing to occur only after the removal of a previously printed label. Minimum label length is 1.5 inches (38 mm).

## 3 Heavy Duty Peel & Present DPO78-2617-01



An internally "overdriven" design for heavy duty requirements using aggressive adhesive or polyester type media. Minimum label length is 1.5 inches (38 mm).

## 4 Cutter DPO78-2618-01



Plug and Play. Attach the option and it is auto detected during power up. The cutter is a rotary type mechanism capable of cutting media from .0025" to .0100" (.0635mm - .254mm) thick, and the cutter life is designed to exceed 500,000 cuts.

#### 5 Self-Powered Internal Rewind DPO78-2667-01



A heavy-duty 8" label rewind option using a dedicated DC motor to tightly rewind a full 8" roll of labels and backing onto a 3" diameter core.

#### 6 Present Sensor DPO78-2619-01



An output control device that allows subsequent printing to occur only after the removal of a previously printed label.

## Linear Scanner DPO78-2629-01



This new design provides 100% check on every barcode label. If unreadable it will automatically void the labels containing failed bar codes. Supports picket style bar codes.

## 8 MCL



A MCL-enabled Datamax printer becomes an intelligent printer with the ability to accept input from devices such as scanners, scales, keyboards, or other peripherals. The printer-resident MCL application can then process received data and performs any number of resulting functions.

## 9 RFID-Ready Printer



Factory installed antenna and wiring, for use with future RFID module purchase.

## RFID-Ready Upgrade Kit DPO-78-2667-01



UHF RFID Upgrade Kit for use with RFID Ready printers. The kit contains a multi-protocol; EPCglobal and Gen2 compatible, w/power RFID module.

### RFID-Built



The RFID option demonstrates the flexibility and protection against obsolescence provided by the modular design of Datamax H-Class printers. Based on "from the ground up" design, the RFID antenna is located inside the paper path to give a more precise read.

#### 12 ILPC Fonts



An expandable international language font to support broader printing needs.

- > CG-Times (western European) Scalable font
- > Kanji Gothic B Scalable font
- > Simplified Chinese GB Scalable font
- > Korean Hangul font

# 13 DMXWare XML



XML parsing to accommodate ERP and RFID label requirements from companies including SAP and Oracle.

# IntelliSEAQ<sup>™</sup> Printhead

Datamax introduces IntelliSEAQ<sup>™</sup> printhead, the first thermal print head combining advanced thermal control with full performance history that offers the most advanced diagnostics available today.

When investing in a Datamax IntelliSEAQ<sup>™</sup> printer you are assured of:

- A durable print head giving you longer print head wear
- Less frequent replacement of print heads resulting in reduced down time
- Greater thermistor control for the highest print quality

Maintaining the highest standards in printhead control, the life and performance is dramatically increased. This insures that demands of mission critical applications can be achieved and maintained at any level of usage.

The advanced diagnostics stored in the print head gives a reseller the tools to quickly assess the operation of the print head and proactively service the customer's needs ensuring the printer continues to perform on demand. Information in both the short form and long form is available to understand the information unique to each H-Class printer.

The short form is available for viewing from the "Datamax Printer Configuration Utility" of the H-Class and clicking on the PH control button. This icon appears only on configurations of printers supporting the IntelliSEAQ™ printhead.

#### The short form includes:

**Printhead Serial Number:** Serial number of the installed printhead.

**Printer Serial Number:** Serial number from the printer device or station that the printhead was configured on.

**Printhead inches:** The number of inches of media that has traveled under the printhead.

**Initial Installation Date:** The date the printhead was initially configured/installed in the printer.

**Current Firmware:** The printer firmware revision of the printer the printhead is installed in

**Current Installation Date:** The installation date of the printhead in the printer.

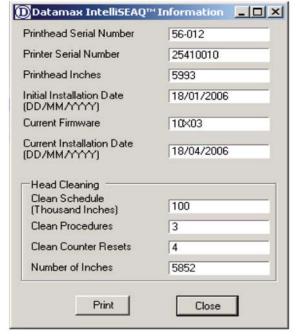
#### **Head Cleaning:**

**Clean Schedule:** The cleaning schedule of the printer that the printhead is currently running in.

**Clean Procedures:** The number of printer "Clean Head" procedures executed on the printhead.

**Clean Counter Resets:** The number of times the clean counter was reset while the printhead was in the printer (includes number of cleaning procedures performed).

**Number of Inches:** The number of printed inches at the time the counter was reset or the "clean head" procedure was executed.



Short Form

The long form is available for viewing from the "Datamax Printer Configuration Utility" by placing the mouse over the PH control button and pressing "Shift, Alt, D". The reseller should only use the long form. It is designed to obtain additional information about the printhead and environment. It is an additional touch point for resellers to support end customers. This form is only available on printers supporting the IntelliSEAQ™ printhead.

### The long form includes:

### **Manufacturer Characteristics:**

Revision Number: The number associated with the printhead

control data stored in the printhead

Model Number: The unique number assigned to the printhead

that defines its mechanical and electrical makeup

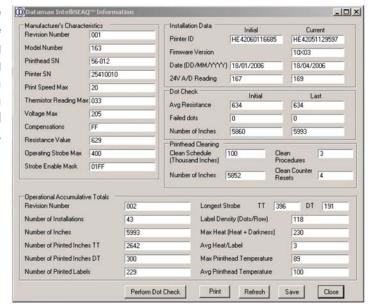
**Printhead S/N:** The serial number from the printhead label **Printer S/N:** The serial number from the printer that the

printhead was installed or configured on

The following characteristics are preset by Datamax and are used by Datamax only...

Print Speed Max: Resistance Value:
Thermistor Reading Max: Operating Strobe Max:
Voltage Max: Strobe Enable Mask:

Compensations:



Long Form

#### **Installation Data:**

Printer ID: An unique number that identifies each Datamax printer

Firmware Version: Current printer firmware that the printhead is currently installed in

Date: Date the printhead was installed into the printer

24Volt A/D/ Reading: Voltage reading at time printhead was installed

#### **Dot Check Data:**

Avg. Resistance: Average resistance of all the printhead elements

Failed Dots: Number of elements whose resistance falls outside the expected range

Number of Inches: Number of inches at time last dot check was performed

#### **Head Cleaning:**

Clean Schedule: The cleaning schedule of the printer that the printhead is currently running in

Clean Procedures: The number of printer "Clean Head Now" procedures executed on the printhead

Clean Counter Resets: The number of times the clean counter was reset while the printhead was in the printer

**Number of Inches:** The number of inches printed at the time the counter was reset or the "clean head" procedure was executed including "clean head" procedures executed

#### **Operational Accumulative Totals:**

Revision Number: The number associated with the operational data stored in the printhead

Number of Installations: Number of changes in the printer detected

Number of Inches: Total number of inches of media printed that has traveled under the printhead

Number of Printed Inches: Total number of inches of media printed that has traveled under the printhead for both thermal transfer and direct thermal operations.

Longest Strobe: Longest strobe that was ever applied to any one of the printhead elements

Max Heat: Highest number of additional heating units applied at one time.

Avg. Heat/Label: Average of additional heating units applied

Max Printhead Temperature: Highest reading of the printhead thermistor recorded

Avg. Printhead Temperature: Average reading of the printhead thermistor

# **RFID Solutions**

The H-Class printer is the first printer in the industry to be completely designed for RFID. Built from the ground up, the H-Class delivers one of the industries most reliable, RFID solution to support the growing demands of RFID compliance and evolving business requirements.

The Datamax H-Class RFID (Radio Frequency Identification) printers offer many benefits to ensure customer requirements are met.

- Multiple power setting to adjust RF power to various protocols
- Tracks both good and unusable labels
- Easy to use calibration feature
- Flexible inlay positioning
- Seamless upgrade to future emerging RFID protocols



The Datamax strategic integrated RFID design increases encoding accuracies by reducing the electromechanical interferences within the printer. This ensures maximum precision labels.

The Datamax H-4212X and H-4310X are available in two RFID configurations:

#### **RFID-Ready Printer**

Configured with the UHF antenna and cable pre-installed. When the unit is ready to be upgraded in the field, an upgrade kit - DPO78-2667-01 can be purchased.

(The upgrade kit includes the module, regulator board, mounting plate, cables, screws and documentation necessary to complete the RFID field installation.)

#### **RFID-Built Printer**

Out of the box RFID configuration with all the electronic components and encoding read/write devices installed and enabled to support RFID applications.

All Datamax H-Class RFID printers support either HF and UHF encoder modules. HF operates at 13.56 MHz and supports the ISO 15693 High Frequency standard. UHF operates between 865 and 955 MHz depending on geographic region and supports the EPCglobal Class 0,0+, 1, and Class 1 Gen 2 standards, 18000-6c, along with EM4022/4222 and U Code EPC 1.19. Datamax H-Class printers offer scalable solutions for users regardless of their level of RFID deployment.

RFID Labels can be purchased through Datamax Pioneer. Labels are available with inlays from a variety of manufacturers and have been tested with the H-Class printers.



U.S.



All Datamax Pioneer RFID labels have been tested and approved for use in the H-Class RFID Printers.

Call 800-321-2233 for media pricing.

## H-Class - UHF 915 MHz - Sample ROLLS

Toyac	Instruments	DALL	AC -	Clace :	1 /	Con	2 -	96	<b>Bit</b>
rexas	instruments	DALL	.AS -	Class		Gen		หก	ВП

	Part #	Adhesive	Labels/Roll	
Thermal Transfer 4" x 6"	H420070-U1296-4/FL	Permanent	150	

## H-Class - UHF 915 MHz - FULL ROLLS

Texas Instruments DALLAS - Class 1 Gen 2 - 96 Bit

	Part #	Adhesive	Labels/Rol
Thermal Transfer 4" x 6"	H420070-DALLAS/FL	Permanent	750

Avery Dennison AD-220 RUNWAY - Class 1 Gen 2 - 96 Bit

	Part #	Adhesive	Labels/Roll	
Thermal Transfer 4" x 6"	H420070-AD220/FL	Permanent	750	

Avery Dennison AD-810 PHARMA - Class 1 - 96 Bit

	Part #	Adhesive	Labels/Roll	
Direct Thermal 2" x 4"	H301044-AD810/FL	Permanent	1000	

Alien ALL-9440 SQUIGGLE - Class 1 Gen 2 - 96 Bit

	Part #	Adnesive	Labels/Roll	
Thermal Transfer 4" x 2"	H420024-AL9440/FL	Permanent	1000	

## H-Class - UHF 915 MHz - KITS

Label Kit includes 2 rolls of labels (300 labels) and 1 matching ribbon

UHF-TEXAS INSTRUMENTS Dallas Class 1 Gen 2 - 96 Bit

	Part #	Adhesive	Labels/Roll
Thermal Transfer 4" x 6"	KH420070-U1296-4/FL	Permanent	150
Alian ALL-9440 SOUIGGLE - Class	1 Con 2 - 06 Rit		

Alien ALL-9440 SQUIGGLE - Class 1 Gen 2 - 96 Bit

	Part #	Adhesive	Labels/Roll	
Thermal Transfer 4" x 2"	KH420024-AL9440/FL	Permanent	150	

## H-Class - HF 13.56 MHz - FULL ROLLS

Texas Instruments Tag-It ISO RI-I11-114A-01 - 256 Bit

	Part #	Adhesive	Labels/Roll
Thermal Transfer 4 x 6	H420070-HFISO/FL	Permanent	750

Texas Instruments Tag-It ISO RI-I03-112A-03 - 2048 Bit

	Part #	Adhesive	Labels/Roll	
Thermal Transfer 2 x 4	H420044-HFISO/FL	Permanent	1000	

Large volumes, custom configurations and materials available - please call for quote.

# **Printer Specifications**

### H-4212X and H-4310X

#### **Standard Features**

- Thermal transfer and direct thermal printing of bar codes, text, and graphics on demand and batch printing
- Thin film printhead with IntelliSEAQ<sup>™</sup> (Sequential Energy Adjustment for Quality)
- · Die-cast aluminum frame
- Datamax Programming Language (DPL)
- · 32bit multitasking 200Mhz DragonBall® Processor
- · 16 MB RAM memory
- · 8 MB Flash downloadable program memory (firmware)
- · Serial RS-232 port, Parallel, USB, Ethernet Interfaces
- · IEEE 1284 compliant bi-directional parallel port
- · Gap, notch and reflective top of form media sensing
- · 5 button 240 x 320 LCD Graphical back-lit LCD display
- Configuration settings via front LCD panel menu,
- · No dipswitches.
- · Menus in English, French, Italian, German and Spanish
- · Configuration label makes set-up easy to understand
- · Simple ribbon and media loading
- · Rotating media hub for 3.0" supply rolls
- · Clear window in media cover -- easy to view supplies.
- · Media tear bar
- · Fan-fold media handling from bottom or rear of printer
- AGFA font engine with CG Triumvirate™ Scalable font
- Datamax printer driver for Windows 98 and above desktop operating systems
- 2 USB front panel connectors
- SDIO support up to 2GB
- · Ethernet Connectivity

#### **Printing Specifications**

- 203 dpi print resolution (8 dots/mm); H-4212X
   300 dpi print resolution (12 dots/mm); H4310X
- · Nominal Printhead Dot Size:

.0043" (.11mm) W x .0052" (.13mm) L; *H-4212X* .0027" (.07mm) W x .0043" (.11mm) L; *H-4310X* 

· Print Speeds:

Programmable from 2" (51mm)/sec through 12" (305mm)/sec in  $\frac{1}{2}$ " (12mm) increments; H-4212X Programmable from 2" (51mm)/sec through 10" (254mm)/sec in  $\frac{1}{2}$ " (12mm) increments; H-4310X

Print length range: .25" to 99.99" programmable

#### **Media Specifications**

- Maximum print width: 4.10" (104mm)
- · Maximum label length: 99.99" (2.54m)
- · Maximum media width (label plus liner): 4.65" (118mm)
- Media Width Range: 1" (25mm) to 4.65" (118mm)
- Media Core ID Range: 1.5" (38mm) 3.0" (76.2mm)
- Minimum label length:

Tear off mode: .25" (6.35mm)
Peel mode: 1.00 (25mm)
Rewind mode: .25" (6.35mm)
Cutter mode: 1.00 (25mm)

- Media thickness (label & liner): .0025" to .010" (.06mm to .25mm)
- · Maximum full-width media thickness for cutter: .010" (.25mm)-
- Maximum media roll size: 8.0" (203mm)
- · Fan fold media: loads through rear or bottom of printer
- · Gap and notch sensing standards:

Gap between labels: 2mm minimum

Sensing notch: .20" (5.1mm) W x .12" (3mm) L

Sensing hole: 0.08" (2.0mm) diameter

Black Mark on back of label: minimum length of 2mm (0.08") long

and 12mm (.047") wide.

#### **Ribbon Specifications**

- · Ribbon width range: 1" (25m) to 4.5" (114mm)
- Standard ribbon lengths: 300m (984'), 450m (1476') and 600m (1969')
- Standard ribbon wound coated side in and ribbons wound coated side out.

#### **Communications Specifications**

- One EIA RS-232/DB-25 serial connector. 2400, 4800, 9600, 19.2K and 38.4K baud supported.
- · One IEEE 1284 Compliant Parallel interface port
- One internal connector for use with an external media cutter and present sensor
- SNMP Internal Ethernet Adapter supporting 10/100 mbps transfer rate with 10-Base-T connector
- · USB interface

#### **Internal Font Sets**

- · Nine Bit-Mapped Fonts, rotatable 0, 90 180, 270 degrees
- · CG-Triumvirate™ Scalable Font
- CG Triumvirate™ Condensed Bold Scalable Font

Specifications are provided for reference and are based on printer tests using Datamax brand ribbons and labels. Results may vary in actual application settings or when using other than recommended supplies. Specifications to change without notice.

#### **Bar Code Symbologies & Specifications**

- Bar Code Modulus: 5 mil to 110 mil "X" dimension in picketfence or ladder orientations
- All printed barcodes meet the requirements of ANSI Document X3A1-3, Guideline for Barcode Print Quality, Grade A
- Supported Barcode Symbologies include Code 39 (used to produce industry standards such as AIAG, HIBC, LOGMARS), Interleaved 2 of 5, Code 128 (Subsets A,B,C), Codabar, LOGMARS, UPC-A, UPC-E, UPC2&5 digit addendums, EAN-8, EAN-13, EAN 2&5 digit addendums, UPC random weight, Code 93, Plessey, Universal Shipping Container Symbology, Code 128 MOD 43, Postnet, USS/EAN-128 random weight, Telepen, UPS MaxiCode (Mode 2 & 3), QR Code, PDF417, Datamatrix, EAN 128 support (with function character support, ITF support)

#### **Electrical Specifications**

- · 90-132 or 180-264 VAC @ 47-63 Hz, auto ranging.
- · Power consumption: typical operating: 90 Watts / Standby: 10 watts

#### **Physical Specifications**

Height: 16.48" (418.6mm)
Width: 12.64" (321.0mm)
Depth: 19.25" (488.9mm)
Max Weight: 46.6 lbs (20.5kg)

#### **Environmental Specifications**

- · Operating Temperature: 32° 100° F (0° to 38° C)
- · Storage Temperature: 0° to 140°F (-17° to 60° C)
- · Humidity: 10% 95% non-condensing
- · Dust: Non-conducting, non-corrosive
- · Electromagnetic Radiation: Moderate RF fields can be tolerated.
- WEEE Compliant EU Directive 2002/96/EC
- · ROHS Compliant EU Directive 2002/95/EC

#### **Agency Listings**

- UL 60950-1:2003, First Edition, CSA.C22.2 No. 60950-1-03, First Edition, EN60950-1:2001, GOST-R
- · Complies with FCC CFR 47 Part 15 Class A
- · CE Mark: EN55022 Class B, EN50024
- · Meets Energy Star guidelines for energy efficiency

#### **RFID Specifications**

- · EPCGlobal Spec
- · UHF and HF supported
  - · GEN2 compliant
  - · ISO15693

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# **Printhead Cleaning Procedures**

Datamax encourages a scheduled cleaning of the printhead. This will give the user optimum performance and quality from their H-Class printer and provide maximum life of the printhead.

Datamax offers three easy methods to clean the printhead:

(Please refer to the H-Class users manual for detailed instructions on cleaning the printhead).

#### 1) Cotton Swab Procedure

- a. Use for direct thermal media, thermal transfer media and wax ribbon
- b. Use a moistened cotton swab with isopropyl alcohol and gently clean the entire printhead surface

### 2) Cleaning Card Procedure

- a. For printers using direct thermal media, or thermal transfer media and wax ribbon
- b. Place a cleaning card (P/N 70-2013-01 for 4" model printer) under the printhead. Close and lock latch and disengage the leveling cam.
- c. Close the cover then press and hold the TEST Button to initiate cleaning

## 3) Cleaning Film Procedure

- a. For printers using thermal transfer media and a resin ribbon or for printers that typically use a heat value of 22 or higher
- b. Place a sheet of cleaning film (P/N 70-2087-01 for 4" model printer) under the printhead. Close and lock the printhead latch and disengage the leveling cam.
- c. Close the cover then press and hold the TEST Button to initiate cleaning.

# Compliance

# **ROHS/WEEE Statement of Compliance**

European Directive 2002/95/EC - Restriction of Hazardous Substances (RoHS) European Directive 2002/96/EC - Waste Electrical and Electronic Equipment (WEEE)

In the interest of compliance with European Union Directives, all Datamax products shipped to the European Union market on or after July 1, 2006 shall be compliant with the European Directive 2002/95/EC, also known as the Restriction of Hazardous Substances (RoHS). All Datamax products shipped to the European Union since August 13, 2005 have been compliant with the European Directive 2002/96/EC, also known as the Waste Electrical and Electronic Equipment (WEEE). Datamax recognizes the importance of these Directives and is taking the necessary steps to meet the compliance standards. It is simply a part of the company's commitment to supporting the European community as well as the global environment.

The product box will contain marking to signify RoHS compliant products. The RoHS compliant marking will appear as follows:



All Datamax printers will contain marking to signify WEEE compliant products. The WEEE compliant marking will appear as follows:

Please feel free to contact Datamax for any further comment or information on RoHS or WEEE compliance.



# **Agency Approvals**



UL60950-1: 2003 1st Edition

CSA C22.2 No. 60950-1-03 1st Edition; April 2003



#### EN60950

For 230 Volt Operation (Europe): Use a cord set, marked "HAR," consisting of a min H05VV-F cord which has a minimum 0.75 square mm diameter conductors, provided with an IEC 320 receptacle and a male plug for the country of installation rated 6A, 250V

Für 230 Volt (Europa): Benützen Sie ein Kabel, das mit "HAR" markiert ist, bestehend mindestens aus einem H05VV-F Kabel, das mindestens 0,75 Quadratmillimeter Drahtdurchmesser hat; sowie eine IEC320 Steckdose und einen für das Land geeigneten Stecker, 6A, 250 Volt.



As an Energy Star Partner, the manufacturer has determined that this product meets the Energy Star guidelines for energy efficiency.



The manufacturer declares under sole responsibility that this product conforms to the following standards or other normative documents: EMC: EN 55022 (1993) Class B

EN 50024 (1998)

Safety: This product complies with the requirements of EN 60950-1, 1st Edition



Gost-R

FCC: This device complies with FCC CFR 47 Part 15 Class A.

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instructions in this manual, it may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

# **Compatibility Statement**

## H-Class / I-Class Statement Of Compatibility

### All I-Class / W-Class / A-Class DPL data-streams will print correctly on the H-Class printers.

The Datamax H-4212X and H-4310X printers are designed to function like the I-Class printer line. The I-Class firmware is used as the core of the H-Class firmware. The following information provides details that your software integrator would need.

#### Label Positioning

The H-Class printer can automatically detects whether the cutter, Peel Mechanism or Present Sensor is equipped and sets an appropriate label present distance.

#### Default Distances:

Cutter - .95 inch (4" wide) Peel Mechanism - .42 inch Present Sensor - .30 inch Tear Bar - .44 inch

### Printer Control / Present Distance value (<stx>Kf):

This command controls the present distance operation.

0 = Auto - Printer uses the default distances.

1 = None - Printer does not "present" the printed label.

(Label will stop at the next start of print position.)

# Value = Label is presented this specified distance.

#### Modules:

- The H-Class has removable modules; H (USB Host Ports) and F (SDIO Card Slot).
- I-Class has "optimized" card modules; F and Z
- I-Class has fixed modules sizes for G, X, and Y. The H-Class modules G, X, and Y are flexible and share the same total free memory space.

#### File System:

The H-Class file names can not contain spaces.

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